



**Operator's
Manual**

**John Deere
415, 420, 428, and 430
Universal Rotary Hoes**


**OM-N159315
Issue G4**





To the Purchaser

This rotary hoe was carefully designed and manufactured to give years of dependable service. To keep it running efficiently, read the instructions in this operator's manual. Each section is clearly identified so you can easily find the information you need—whether it is operation, lubrication, or adjustments. Read the table of Contents to learn where each section is located.

 This safety alert symbol identifies important safety messages in this manual. When you see this symbol, be alert to the possibility of personal injury and carefully read the message that follows.

"Right-hand" and "left-hand" sides are determined by facing in the direction the rotary hoe will travel in use.

Record your rotary hoe serial number in the space provided on page 16. Your dealer needs this information to give you prompt, efficient service when you order parts or attachments. If your rotary hoe requires replacement parts, go to your John Deere dealer where you can obtain Genuine John Deere parts—accept no substitutes.

The warranty on this rotary hoe appears on your copy of the purchase order which you should have received from your dealer when you purchased the rotary hoe.



N25968

JOHN DEERE 415, 420, 428 and 430 UNIVERSAL ROTARY HOES

PREDELIVERY CHECK LIST

Inspect the rotary hoe after it has been completely assembled to make sure it operates properly. The following list is a reminder of the points to inspect and procedures to follow before delivering the rotary hoe to the customer. Check off each item if found satisfactory or after proper adjustment is made.

- ☐ Main frame is level.
- ☐ Depth of hoe wheel penetration.
- ☐ Hoe wheels operating in correct direction.
- ☐ Tractor wheels set at desired row spacing.
- ☐ Sway blocks are in upper position.
- ☐ All bolts are tightened.
- ☐ Rotary hoe is assembled correctly.

I have performed the above predelivery service to the best of my ability.

Date _____

Signed _____

OWNER REGISTER

Name _____

Address _____

Post Office _____

State _____

Implement Serial No. _____

Implement Size _____

Date Purchased _____

DELIVERY CHECK LIST

At the time of delivery, important information should be conveyed directly to the customer. Check off each item below as it is fully explained to the customer.

- ☐ Advise the customer to lubricate the machine as directed in the operator's manual.
- ☐ Give the operator's manual to the customer and explain all operating adjustments to him.
- ☐ Tell the customer of safety precautions he must observe when using this machine. See page 11.
- ☐ If it becomes necessary to transport the rotary hoe on public roads or highways, advise customer to check with local and state agencies regarding the regulations for transporting over-size equipment and the use of accessory lights and devices for adequate warning to operators of other vehicles on such roads.
- ☐ To the best of my knowledge, this machine has been delivered ready for field use and the customer has been fully informed regarding proper care and operation.

Signed _____

Date _____

AFTER-SALE CHECK LIST

The following is a suggested list of items to be checked at a dealer-customer mutually agreeable time during the first operating season.

- ☐ Check with the customer as to the performance of the rotary hoe. Make certain he understands the proper operating adjustments for his crop (or soil condition).
- ☐ If possible, run the rotary hoe to see that it is functioning properly.
- ☐ Acquaint the customer with any special attachment which will help him to do a better job.

- ☐ Go over entire rotary hoe for loose or missing bolts.
- ☐ Check for broken or damaged parts.
- ☐ Check with the customer to ascertain if the recommended periodic lubrication has been performed.
- ☐ Review the operator's manual with the customer and stress the importance of proper lubrication and safety precautions.

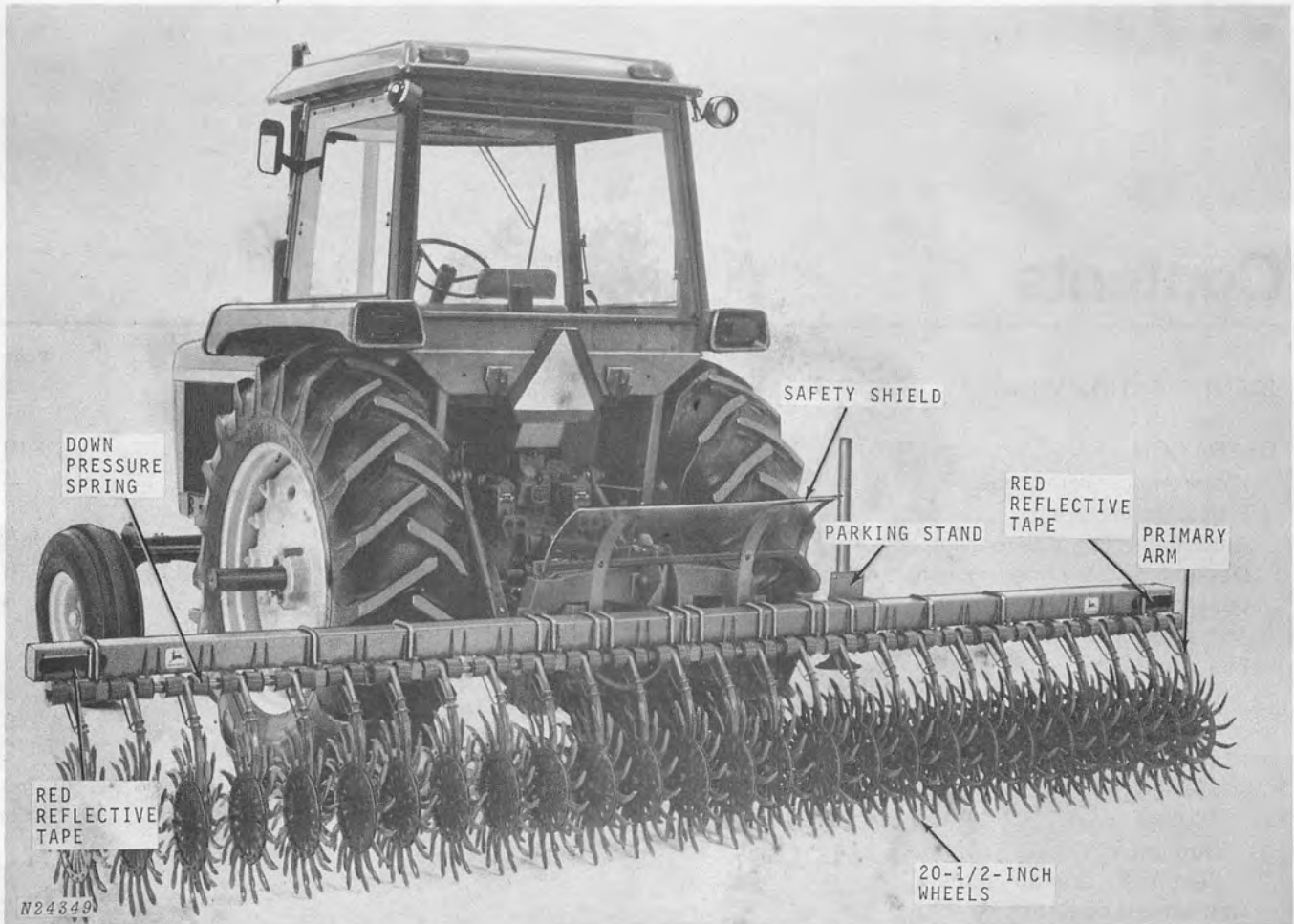
Signed _____

Date _____

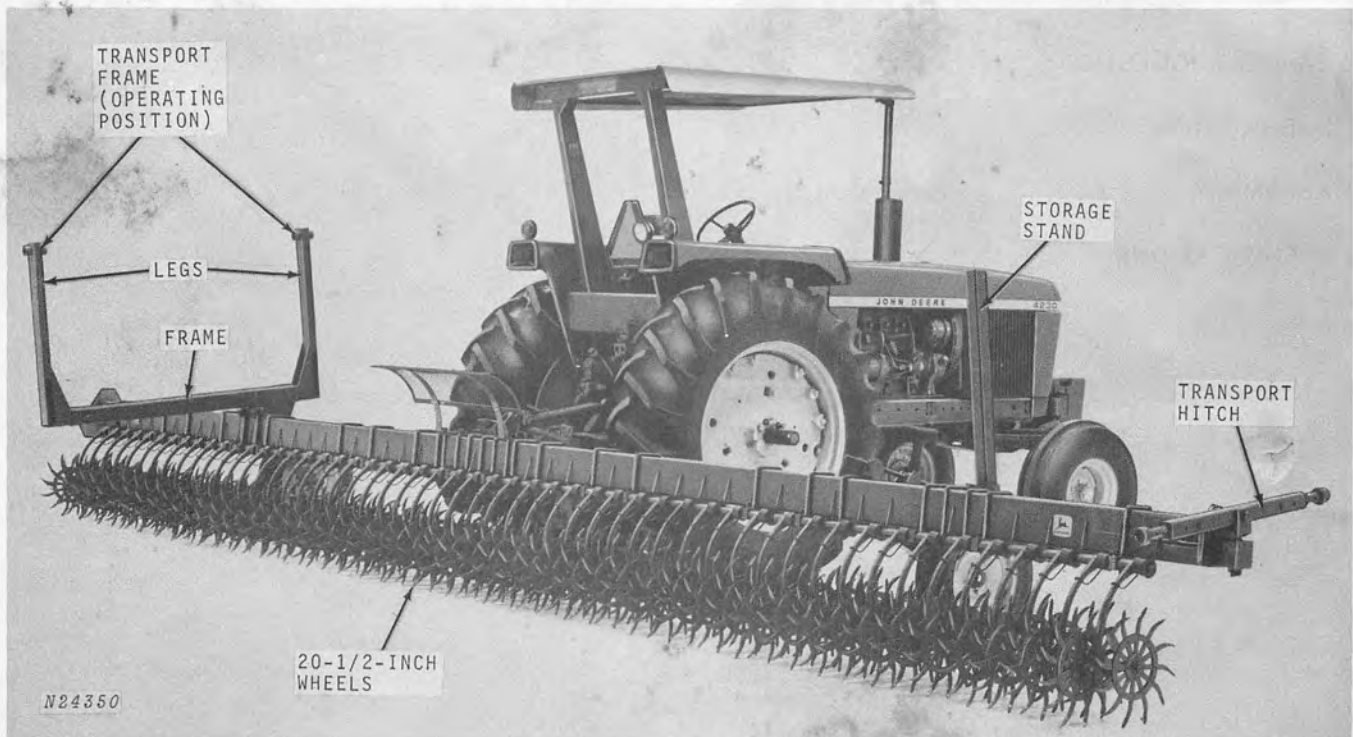


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John Deere Model 415 Universal Rotary Hoe with 20-1/2-Inch Wheels



John Deere Model 420 Universal Rotary Hoe with Transport Frame



Operation

PREPARING THE ROTARY HOE

Bolts and Nuts

Before starting to work, check to see that all nuts and bolts are tight. (See torque chart on page 8.)

Hoe Wheels

Check all hoe wheels for straightness, replace if necessary.

Tire Inflation

Check tires on frame gauge wheels or endways transport wheels to be sure they are inflated to 28 psi.

Lubrication

Be sure frame gauge wheels, if used, have been lubricated properly. (See page 12).

Hitch Pins and Spacers

CAUTION: Before attaching rotary hoe to tractor be sure hitch pins and spacers are completely assembled to match the hitch configuration of your tractor.

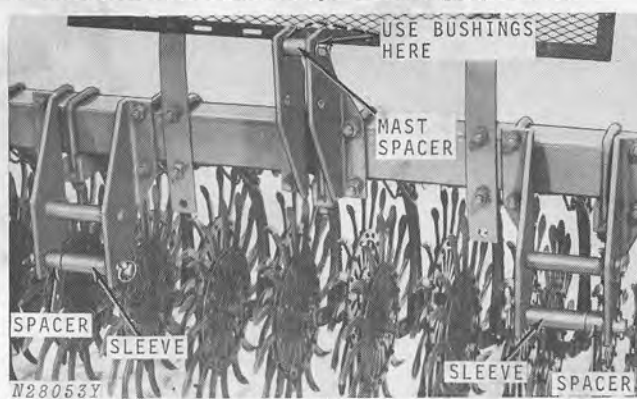
For Tractor with Quik-Coupler - Category 2 Hitch



5 x 7 Frame - Category 2 Hitch

Place sleeves, spacers, and mast ball in positions shown above.

For Tractor with Quik-Coupler - Category 3 Hitch



5 x 7 Frame - Category 3 Hitch

Place sleeves and spacers in positions shown above.

Remove mast ball and move mast spacer to top hole. USE BUSHINGS PROVIDED TO ADAPT BOLT TO LARGER HOLE.

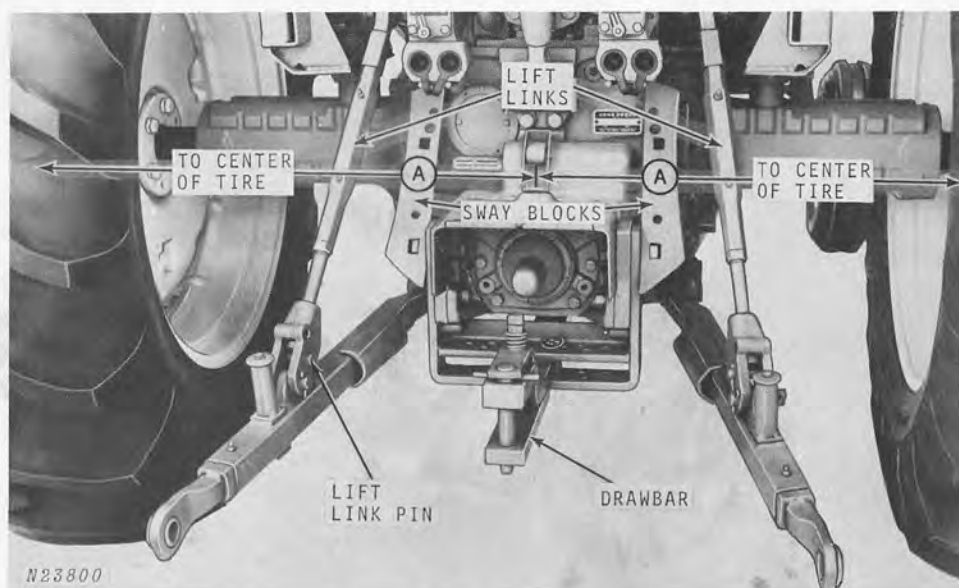
For Tractor without Quik-Coupler - Category 2 Hitch



5 x 7 Frame - Category 2 Hitch

Place sleeves, spacer, and mast ball in positions shown above.

PREPARING THE TRACTOR



Tractor with Category 3-Point Hitch

See your tractor operator's manual for complete tractor operating and adjusting instructions.

Wheel Spacing

Set the tractor wheels for the desired row spacing so the wheels are centered between the rows. The dimension "A" from the center of the tractor to the center of each tire should be the same.

See your tractor operator's manual for correct tire inflation pressures and instructions for wheel ballast where required.

Sway Blocks

Place the sway blocks in the upper, wide setting (as illustrated) to prevent rotary hoe side sway during transport. See your tractor operator's manual.

Drawbar Position

Place the drawbar in the short, center position to provide maximum clearance between rear of drawbar and rotary hoe.

Lift Links

Adjust length of lift links to minimum length. (See your tractor operator's manual.) Be sure to maintain adequate clearance between tractor tires and rotary hoe components.

Lift Link Lateral Float Adjustment

If frame gauge wheels are used, adjust lift link pins to allow lateral float.

If frame gauge wheels are not used, adjust lift link pins to prevent lateral float, as illustrated above.

See your tractor operator's manual.

Rockshaft Selector Lever

Place rockshaft selector lever in the "zero" (depth control) position.

NOTE: On earlier model tractors, place lever in "D" (depth control) position.

Ballast Information

Tractor front end stability is necessary for safe and efficient operation. Therefore, it is important that the proper amount of weight be installed on the front of the tractor as recommended in your tractor operator's manual.

NOTE: Ballast recommendations provide for adequate transport stability. Additional front ballast may be required for satisfactory field operation, or if weight is added to the rotary hoe main frame. (See tractor operator's manual.)

Instructions for Determining Ballast

Step 1 - Find your Rotary Hoe model in Implement Code Table and enter its Implement Code on Line 1 below.

Step 2 - Enter an Implement Code for each attachment or option used on your Rotary Hoe on Line 2.

Step 3 - Add Implement Code of Rotary Hoe and Implement Code(s) for each attachment used to obtain the Total Implement Code.

Step 4 - Refer to tractor operator's manual to determine required tractor front ballast.

IMPORTANT: 1. If the total implement code exceeds the maximum implement code listed for a particular tractor model, the implement-attachment combination is not recommended for that tractor.

2. The total load on any tractor wheel due to the weight of the implement-attachment combination and tractor equipment, should not exceed the carrying capacity of the tractor tires.

Refer to tractor operator's manual for weight limitations applicable to your tractor and tires.

IMPLEMENT CODE TABLE

Rotary Hoe Model	Implement Code
415	65
420	96
428	123
430	138
Attachments Or Options	
Frame Gauge Wheel Frames with Wheels	4
Endways Transport without Wheels (Frame Gauge Wheels in field position)	16
Endways Transport with Wheels (Frame Gauge Wheels not used)	23

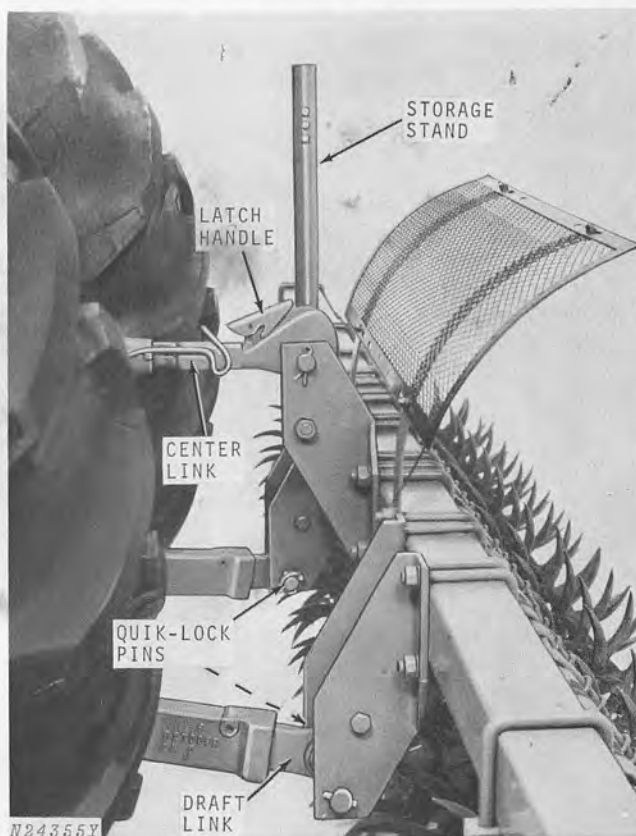
Line 1. _____

Line 2. _____

Total Implement Code _____

ATTACHING ROTARY HOE TO TRACTOR

Tractor Without Quik-Coupler



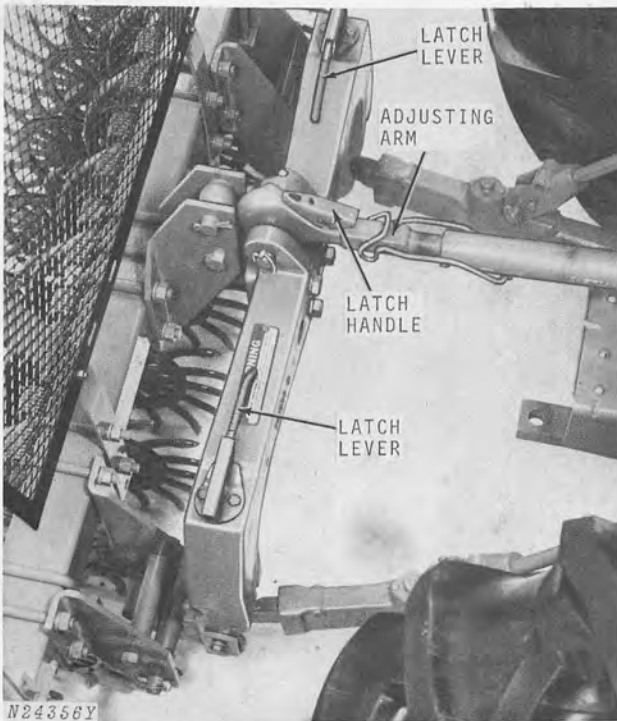
Three-Point Hitch without Quik-Coupler

Attach rotary hoe to tractor as shown above. Adjust center link or extend draft links to make hookup easier.

Raise rotary hoe and pin storage stand in upper position. If transport wheels are used, change wheels and stand to field position and pin them in place. See page 7.

ATTACHING ROTARY HOE TO TRACTOR—Continued

Tractor With Quik-Coupler



Category 2 Hitch with Quik-Coupler

Lower the 3-point hitch so the upper jaw of the Quik-Coupler will pass under the spacer between the rotary hoe mast plates. This will allow the lower jaws of the Quik-Coupler to pass under the rotary hoe hitch pins.

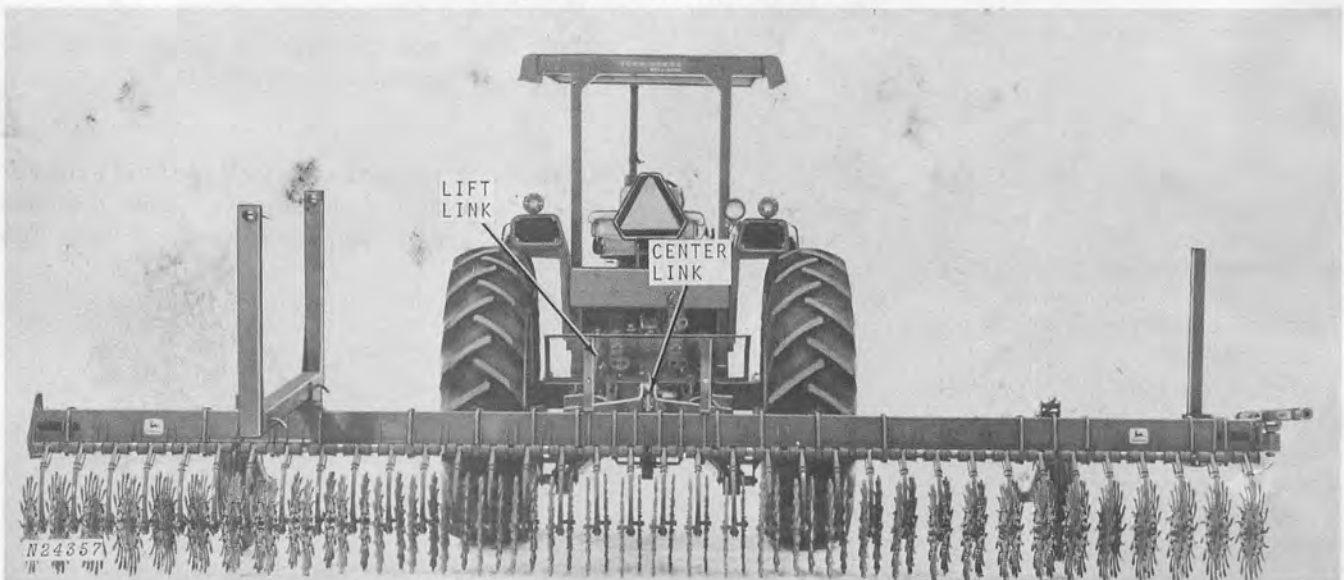
Back the tractor until the coupler jaws are under their respective hitch points and raise hitch.

CAUTION: Make certain the center link latch handle and Quik-Coupler latch levers are locked and quik-lock pins are properly installed in hitch pins before moving rotary hoe.

DETACHING ROTARY HOE FROM TRACTOR

Lower stand and transport legs and wheels, if used, and pin in place. Lower rotary hoe and loosen center link if necessary. Release latch levers and lower Quik-Coupler, or raise center link latch handle and remove hitch pins, then detach tractor.

LEVELING MAIN FRAME



Adjust lift links to level the rotary hoe frame.

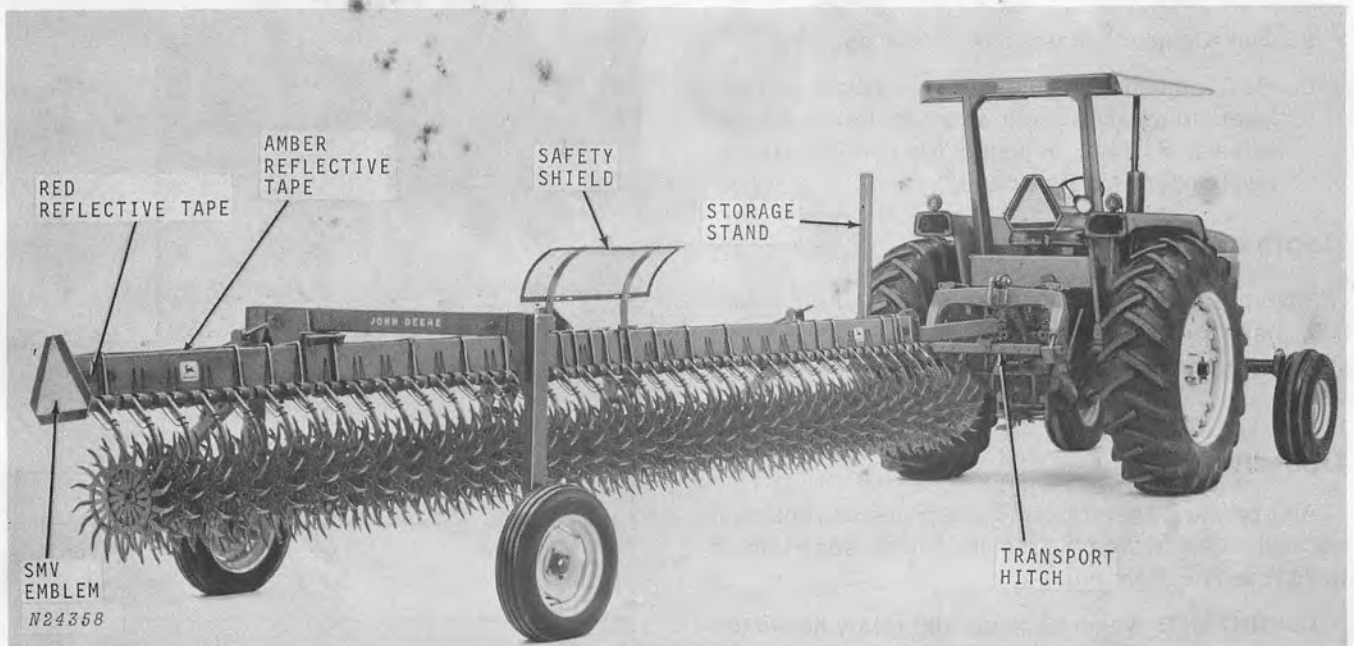
Adjust center link as necessary to make front face of rotary hoe frame perpendicular to the ground.

NOTE: If gauge wheels are to be used, make leveling adjustment after wheels are installed.

TRANSPORTING



Field Position



Transport Position

To change from field to transport position, lower transport wheels, storage stand and hitch drawbar. Extend tongue and attach to tractor. Raise storage stand.

Make certain SMV emblem and red reflective tape are in place before transporting.

Do not exceed 15 mph while transporting the rotary hoe.



CAUTION: When transporting the rotary hoe on a road or highway at night or during the day, use accessory lights and devices for adequate warning to the operators of other vehicles. In this regard, check local governmental regulations. Various safety lights and devices are available from your John Deere dealer.

FIELD OPERATION

Pre-Operation Check List

Use this check list each time you go to the field. It will help you obtain satisfactory field operation quickly.

1. Tractor sway blocks in upper wide position (see page 4).
2. Center link adjusted for level frame in field operation.
3. Tractor lift links set for lateral float.
4. Tractor rockshaft selector lever in "zero" (depth control) position or in "D" position depending on tractor model.
5. Adequate front ballast (see pages 4 and 5).
6. Visual check of hoe made and loose or missing hardware tightened or replaced.
7. Bent hoe tines straightened or replaced.
8. Hitch pins fastened and correct spacers used (see pages 5 and 6).
9. Quik-Coupler latches locked (see page 6).
10. Field adjustment - Tractor rockshaft control lever adjustable depth stop, or frame gauge wheels, if used, adjusted for nominal frame height operation (this page).

Depth of Penetration

Several factors affect the penetration of the rotary hoe tines. Three important factors are: (1) Operating speed, (2) Main frame height, and (3) Down pressure springs.

Operating Speed

An operating speed from 5 to 8 miles per hour will normally provide the best results. Higher speed tends to increase penetration.

IMPORTANT: Never back up with rotary hoe in the ground.



CAUTION: For safety's sake, do not exceed 15 miles per hour during field transport,

Main Frame Height

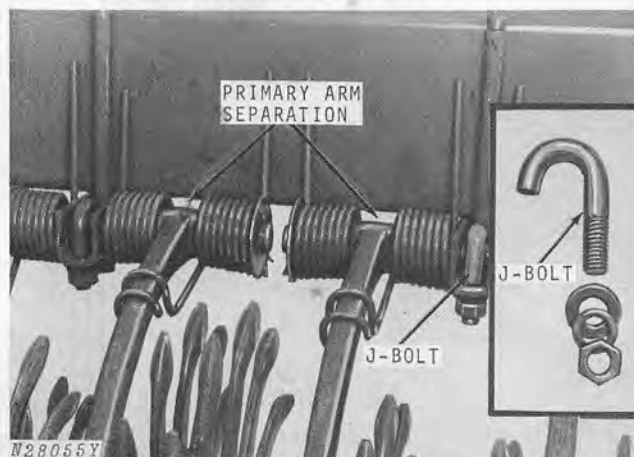
Main frame height during field operation will normally be about 22 inches to bottom of frame.

Without frame gauge wheels, set the tractor rockshaft control lever stop to obtain the desired frame operating height.

With frame gauge wheels, push the tractor rockshaft control lever all the way forward to lock it in the "float" position, which will enable the frame gauge wheels to maintain the frame at a uniform height from the ground.

NOTE: See Attachments, page 10, for adjustment of frame gauge wheels.

Under normal conditions, the tips of the primary arms will separate from the bottom of the main frame, as shown in the following illustration. The amount of separation will vary depending on soil conditions and the three factors mentioned above.

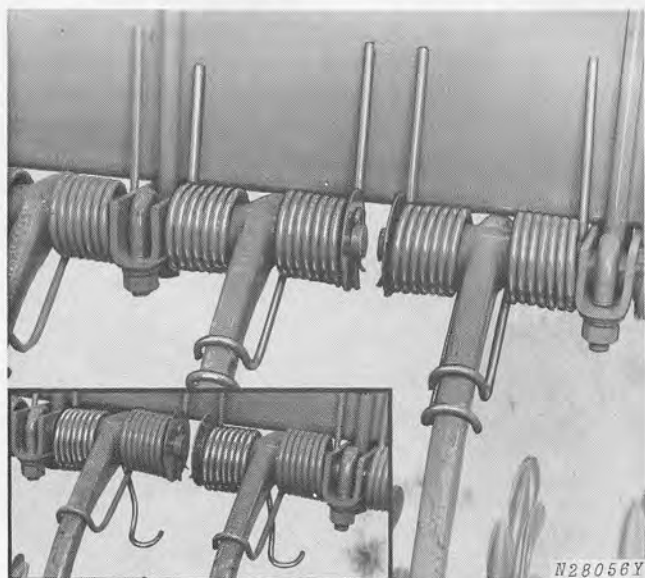


Torque Value Chart

Recommended Torque in Foot-Pounds Coarse and Fine Threads		
<div style="display: flex; justify-content: space-around;"> </div>		
Bolt Diameter	Three Radial Dashes	Six Radial Dashes
1/4	10	14
5/16	20	30
3/8	35	50
7/16	55	80
1/2	85	130
9/16	130	185
5/8	170	250
3/4	300	420
7/8	445	670
1	670	1000

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Down-Pressure Springs



Two down-pressure springs per primary arm are furnished.

Springs may be unhooked from primary arms as desired for selective down pressure, such as in bed cultivation. See inset above.

Turning

IMPORTANT: Always raise the rotary hoe out of the ground when making quick or sharp turns. Quick or short turns will cause excessive side load on hoe wheel tines.

Hoe Tines

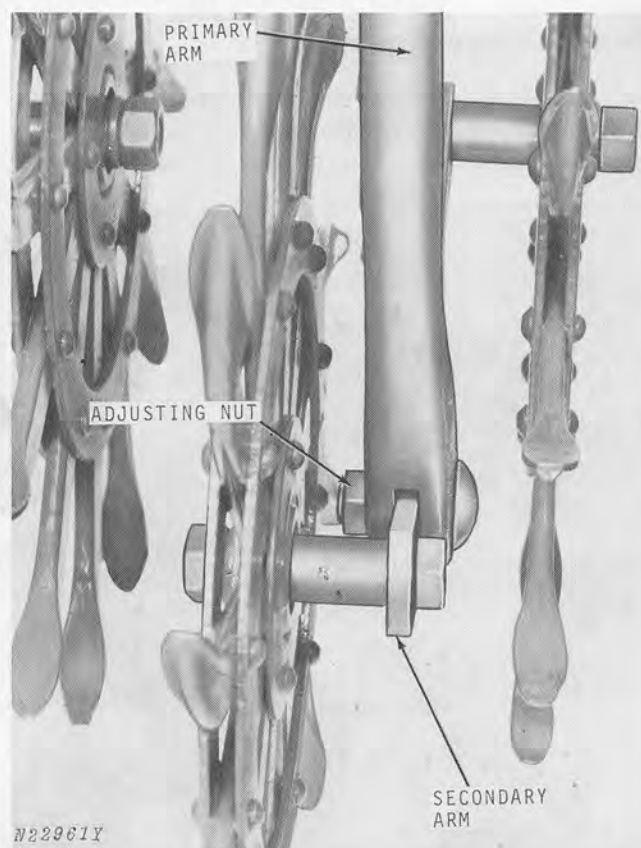
Check hoe tines often to locate any that may be bent or broken. Straighten or replace damaged tines to obtain maximum efficiency and prevent possible damage to other parts.

J-Bolts and U-Bolts

IMPORTANT: Re-torque all pivot shaft J-bolts and U-bolts to specifications (see page 8 for torque value chart) after the first 10-15 hours of field operation.

See J-Bolt inset on page 8.

Secondary Arm Adjustment



Check secondary arms periodically for fit with primary arm. If necessary, tighten adjusting nut to compensate for wear and reduce side play. Tighten nut while rocking secondary arm up and down until a slight drag is felt on the arm.

HOE WHEELS OPERATING DIRECTION

This rotary hoe may be operated with the hoe tines pointed either forward (mulching) or rearward (packing) depending on the results desired.

With wheel tines pointed forward, the tines dig into the ground breaking the top surface and creating a mulch.

With wheel tines pointing rearward a packing action is obtained. The packing of the soil around the seed gives much better germination and leaves a mulch on the surface to help retain moisture and reduce erosion.

To change operating direction, remove wheel bolt and reverse each wheel.

ATTACHMENTS

Frame Gauge Wheels

Frame gauge wheels maintain the rotary hoe frame at a constant level with respect to the ground, which helps assure uniform penetration of the hoe wheels.



Mount frame gauge wheels as shown, locating each wheel an equal distance from center of main frame. Gauge wheels should run outside tractor rear wheel tracks. Wheels may be mounted on either side of wheel frames to accommodate row spacing.

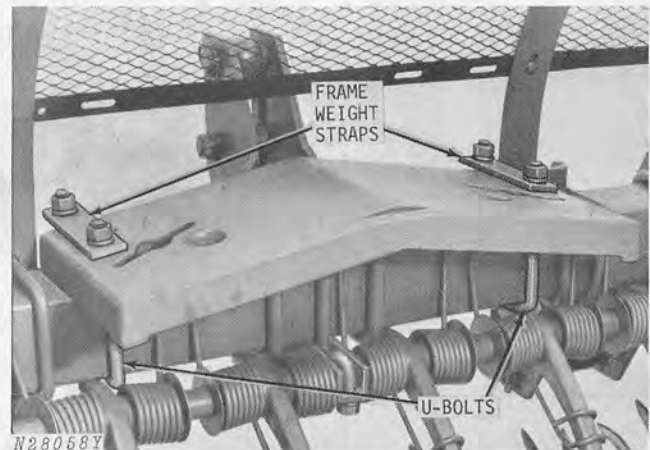
Tighten wheel bolts and adjust wheel bearings during the first week of operation, and periodically thereafter.

To tighten wheel bearing, remove hub cap and cotter pin. Tighten the slotted nut until there is a slight drag on the bearings, while turning the wheel. Then loosen or back off the slotted nut one slot and insert the cotter pin. There should be a slight drag on the bearing following adjustment. Re-install hub cap.

To adjust operating height of main frame, turn adjusting screw until the desired height is obtained.

Frame Weight Straps

Additional weight may be added to the main frame of 415 Rotary Hoes by using the frame weight straps. The added weight allows the hoe wheels to penetrate better and to follow ground contours when used with all down-pressure springs connected and without a heavy-duty Quik-coupler on the tractor.



Install single tractor front frame weight on main frame, as shown, without interfering with tips of primary arms or ends of down-pressure springs.

Up to four tractor weights may be installed. Rotate each weight 180 degrees, with respect to the preceding weight, to line up the mounting holes.

NOTE: Tractor front frame weights are not included in the weight strap bundle.


STORAGE SUGGESTIONS

Completely clean and lubricate the rotary hoe. Store rotary hoe where it is adequately protected from the weather.

Inspect rotary hoe for worn or damaged parts. Replace parts before next season.



Safety Suggestions

 The safety of the operator is one of the prime considerations in the minds of John Deere engineers when designing equipment. Safety shields and other safety features are used wherever possible.

Do not permit anyone other than the operator to ride on the tractor. Under no circumstances should anyone ride on the rotary hoe. Keep all persons at a safe distance from rear and side of rotary hoe as stones, clods, etc. can be picked up by the hoe wheels and thrown to the rear or side of rotary hoe.

Drive at speeds slow enough to insure your safety. Reduce speed before turning quickly or applying brakes. Drive slowly over hills and rough ground to avoid tractor tipping over.

Always keep the tractor in gear when driving down steep grades.

Be sure hitch components are properly and securely installed before operating or transporting the rotary hoe.

When transporting the rotary hoe on a road or highway at night or during the day, use accessory lights or devices for adequate warning to the operators of other vehicles. In this regard, check local governmental regulations. Various safety lights or devices are available from your John Deere dealer.



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Lubrication

CAUTION: To avoid injury, always set the tractor brakes, lower the rotary hoe, and stop tractor engine before lubricating.

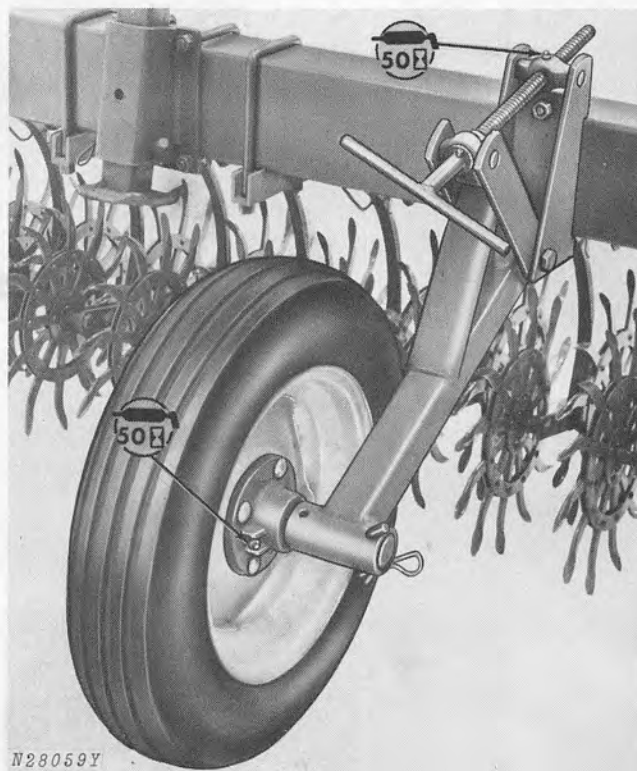
SYMBOLS



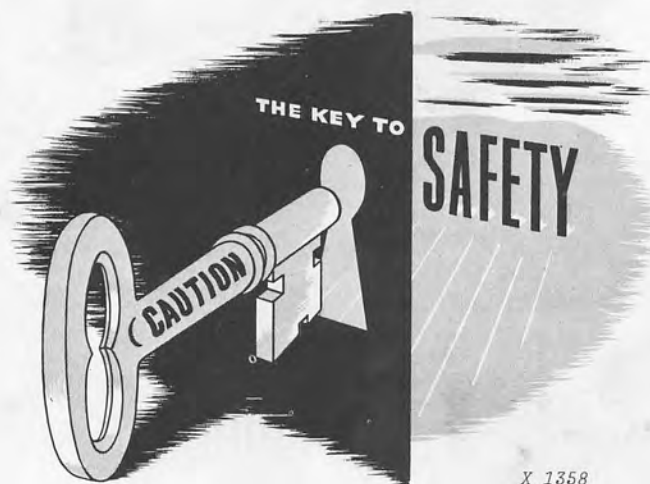
Lubricate with John Deere Multi-Purpose Lubricant or equivalent SAE multipurpose-type grease at hourly intervals indicated.

The lubrication period recommended is based on normal conditions, severe or unusual conditions may require more frequent lubrication.

IMPORTANT: DO NOT LUBRICATE HOE WHEEL BEARINGS.



NOTE: If transport wheels (see page 7) are not being used as frame gauge wheels, less frequent lubrication will be required, depending upon transport time.





Assembly

MAST BUSHINGS AND HITCH PIN SETTINGS

The rotary hoe is shipped with mast and hitch pin brackets assembled for tractors with Category 2 hitch with Quik-Coupler. Bushings for use when hitch is converted to Category 3, are wired to the frame. Refer to pages 5 and 6, "Attaching Rotary Hoe to Tractor" if necessary to convert to alternate hitch configuration.

CAUTION: Before attaching rotary hoe to tractor, be sure hitch pins and spacers are completely assembled to match the hitch configuration of the tractor on which the rotary hoe will be mounted.

SHIELD



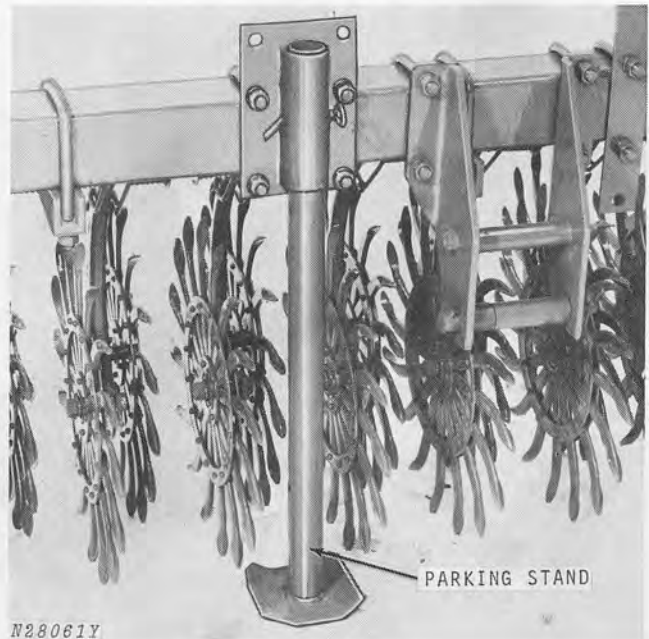
Assemble shield brackets to shield to accommodate available space on main frame of rotary hoe.

Install shield on main frame.

NOTE: Additional shields may be ordered if desired. See Attachments page 10.

CAUTION: Do not operate rotary hoe unless shield is securely and properly installed.

PARKING STAND



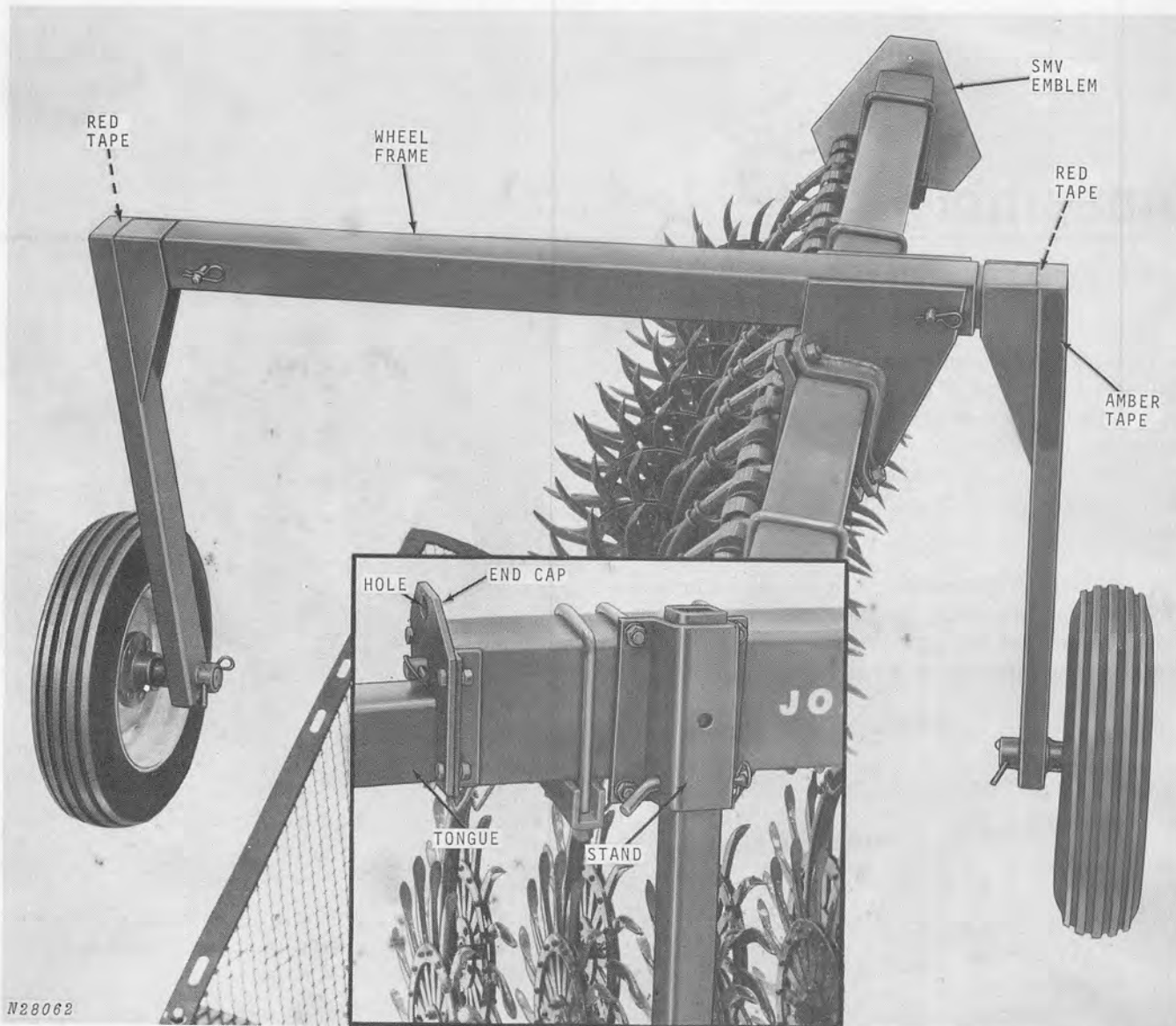
Install parking stand in available space on main frame without interfering with tips of primary arms or ends of down pressure springs.

NOTE: Bracket may be turned upside down to gain additional height.

REFLECTIVE TAPE

Apply red reflective tape to rear of main frame on both ends, and amber reflective tape to left end of front of frame. If endways transport is used apply tape and attach SMV emblem as noted on page 14.

ENDWAYS TRANSPORT



NOTE: Avoid interference with primary arms and down pressure springs when assembling endways transport parts.

Assemble wheel frame to left-hand end of main frame. Locate outside tractor wheel, making certain that transport wheels will clear tractor tires and gauge wheel frames (if used) when installed in transport position.

Raise main frame and install wheel legs and wheels and pin in position.

Assemble stand bracket on right-hand end of main frame.

Insert tongue in frame and assemble end cap to end of frame. Install transport hitch drawbar on tongue in desired position. Refer to page 7 for alternate positions. Transport hitch pins are shipped in

Category 2 position without Quik-Coupler. Adapters are required for Quik-Coupler use. Reassemble hitch pins in outer holes of drawbar for Category 3 use.

Assemble SMV emblem on left end of main frame. Install red reflective tape on rear of both wheel legs and amber reflective tape on front of left-hand leg.

CAUTION: When transporting the rotary hoe on a road or highway at night or during the day, use accessory lights and devices for adequate warning to the operators of other vehicles. In this regard, check local governmental regulations. Various safety lights and devices are available from your John Deere dealer.

NOTE: Refer to page 7 for position of wheels, stand and hitch drawbar for field use.



Specifications

MODELS

415 Universal Rotary Hoe - 15-foot working width, 4 x 4 x 184-1/2-inch frame, four rotary hoe units, 52 - 20-1/2-inch wheels.

420 Universal Rotary Hoe - 21-foot working width, 5 x 7 x 260-inch frame, six rotary hoe units, 72 - 20-1/2-inch wheels.

428 Universal Rotary Hoe - 28-foot working width, 5 x 7 x 336-1/2-inch frame, eight rotary hoe units, 96 - 20-1/2-inch wheels.

430 Universal Rotary Hoe - 30-foot working width, 5 x 7 x 380-inch frame, eight rotary hoe units, 104 - 20-1/2-inch wheels.

TRACTOR REQUIREMENT

415 Rotary Hoe - John Deere 830, 1020 Row-Crop and Hi-Crop Utility; 1520, 1530, 2020, 2030 Row-Crop and Hi-Crop Utility; 2520, 2630, 3020, 4000, 4020, 4030, 4230, 4320, 4430, 4620, 4630, and 5020 Tractors, or equivalent.

420 Rotary Hoe - John Deere 2020 Row-Crop and Hi-Crop Utility; 2520, 2630, 3020, 4000, 4020, 4030, 4230, 4320, 4430, 4620, 4630, and 5020 Tractors, or equivalent.

428 Rotary Hoe - John Deere 2520, 2630, 3020, 4000, 4020, 4030, 4230, 4320, 4620, 4630, and 5020 Tractors, or equivalent.

430 Rotary Hoe - John Deere 2520, 2630, 3020, 4000, 4020, 4030, 4230, 4320, 4620, 4630, and 5020 Tractors, or equivalent.

NOTE: Refer to pages 4 and 5 for ballast information and important tractor-implement limitations.

HITCH

Adaptable to three-point hitch for Category 2 or 3 type, with or without Quik-Coupler.

NOTE: Endways transport hitch is factory assembled for Category 2 hitch without Quik-Coupler.

SAFETY EQUIPMENT

SMV (slow moving vehicle) emblem and reflector tapes for main frame and endways transport (if used) are standard equipment. Safety shield protects operator and tractor from dirt clods and debris thrown by rotary hoe tines. Parking stand is standard equipment, however, it is not required for rotary hoes equipped with endways transport or frame gauge wheels.

ENDWAYS TRANSPORT (Models with 5 x 7 Frame Only)

Reduces transport width to less than eight feet.

Available as optional equipment with two 15-inch wheels with 5.90 - 15-inch Rib Implement Tires or less tires, or 14-inch wheels less tires.

NOTE: Transport wheels may be used as frame gauge wheels as noted below.

FRAME GAUGE WHEELS (Models with 5 x 7 Frame Only)

Available as an attachment with same wheels and tires noted for endways transport above, or may be ordered less wheels, enabling use of transport wheels as frame gauge wheels.

DOWN PRESSURE SPRINGS

Two springs are standard equipment on all rotary hoes.

WEIGHTS (Approximate)

Model	Weight/Lbs.
415 Rotary Hoe	1320
420 Rotary Hoe	1988
428 Rotary Hoe	2587
430 Rotary Hoe	2907

OPTIONAL EQUIPMENT

Endways Transport	
With 5.90 x 15-inch Tires and Tubes	386
With 15-inch Wheels	
(Less tires and tubes)	340
With 14-inch wheels	
(Less tires and tubes)	340

Stand

NOTE: Weight included in rotary hoe base weights above. Not required on rotary hoes equipped with endways transport or frame gauge wheels.

ATTACHMENTS

Frame Gauge Wheels

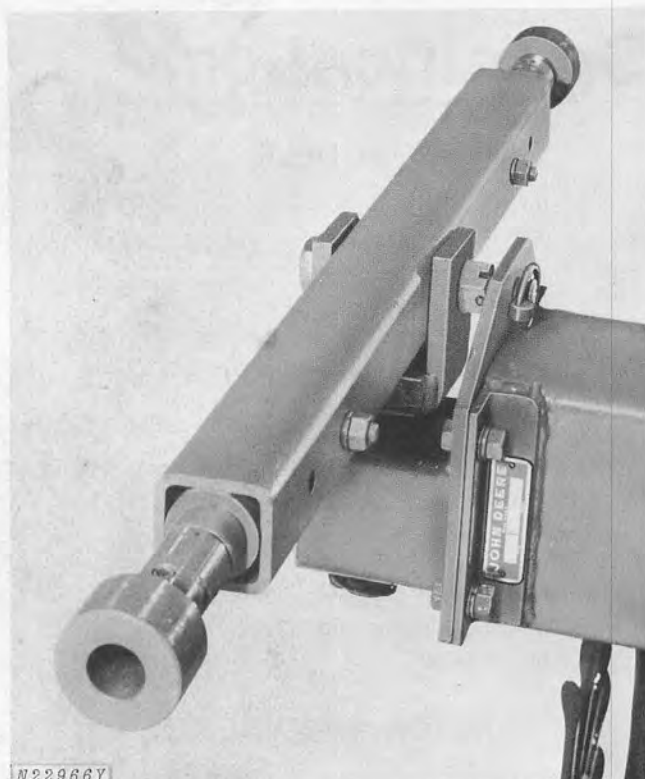
* Frames, less wheels (2 required)	44
With 5.90 x 15-inch tires and tubes	195
With 15-inch wheels	
(Less tires and tubes)	149
With 14-inch wheels	
(Less tires and tubes)	149

* Endways transport wheels used as frame gauge wheels.

Frame Weight Straps (Weights not included)

SERIAL NUMBER

When ordering parts or reporting any other information regarding your rotary hoe, always provide the model and serial number as given on the serial number plate. By doing so, you will assist your John Deere dealer in giving you prompt, efficient service.



5 x 7 Frame Illustrated

The serial number is located on the right-hand end of the main frame. On 4 x 4 main frames, it is on the left-hand end of the frame. Record it below.

Serial Number

Date Purchased 19.....

(Specifications and design subject to change without notice.)

JOHN DEERE SERVICE LITERATURE AVAILABLE...

To order these publications, fill out the form below and mail it with payment to the address given. Make checks payable to Deere & Co. Service Publications. Please allow three weeks for delivery. Prices include handling, taxes and postage to anywhere in the U.S.A. and Canada.

John Deere Distribution Service Center, Department S/P
1400 3rd Ave., Moline, Ill. 61265

Please send to...

Name _____

Address _____

Town _____

State _____ Zip _____

Title	Order No.	Qty.	Price Each
Parts Catalog 415, 420, 428, and 430 Universal Rotary Hoes	PC-1319		\$ 1.50
Operator's Manual 415, 420, 428, and 430 Universal Rotary Hoes	OM-N159315		1.00

NOTE: If you want manuals or catalogs for equipment not shown on this list, list the model number, serial number and name of the equipment below.

FMO Manual - Tractors	FMO-101B		\$ 6.95
FMO Manual - Combine Harvesting	FMO-151B		6.95
FMO Manual - Preventive Maintenance	FMO-161B		6.95
FMO Manual - Machine Safety	FMO-181B		6.95
Set of Four FMO Manuals (Above)	FMO-390 Set		24.95
FOS Manual - Hydraulics	FOS-10B		5.75
FOS Manual - Electrical Systems	FOS-20B		6.85
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Check or money order in U.S. dollars enclosed
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Total

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PARTS CATALOG



A parts catalog containing exploded view illustrations and lists of all parts is useful when purchasing service parts. Helps identify the correct parts. Useful in assembling and disassembling.

OPERATOR'S MANUAL



An extra copy of the operator's manual may be important if the copy furnished with your machine is misplaced.

FMO AND FOS MANUALS



These are basic manuals covering most all types and makes of agricultural machinery. FMO manuals tell you how to *operate* machines, while FOS manuals tell you how to *service* machines. Each manual starts with basic theory and is fully illustrated with plenty of colorful diagrams and photographs. Both the "whys" and "hows" of adjustments and repairs are covered in this handy reference library.

Service to keep you on the job

We, at your John Deere dealer's, pride ourselves in having what it takes to help keep you on the job... where the profits are

John Deere Parts.

We help minimize downtime by putting the right parts in your hands in a hurry. That's why we maintain a large and varied inventory—to stay a jump ahead of your needs.



The right tools.

Precision tools and testing equipment enable our Service Department to locate and correct troubles quickly... to save you time and money.



Well-trained mechanics.

School is never out for John Deere servicemen. Training schools are held regularly to be sure our personnel know your equipment and how to maintain it. Result? Experience you can count on!



Prompt service.

Our goal is to provide prompt, efficient care when you want it and where you want it. We can make repairs at your place or at ours, depending on the circumstances. See us. Depend on us.

John Deere Service Superiority: We'll be around when you need us

